## ABSTRACT

An engine control device for a construction machine of the present invention is configured so that the engine control device comprises an engine as a power source, a controller for performing an automatic stop control to automatically stop the engine when a predetermined automatic stop condition is met, a water temperature sensor for detecting a cooling water temperature of the engine, and that after start up of the engine, even if the automatic stop condition is met, the engine is not automatically stopped until the detected water temperature reaches a predetermined value or more to complete a warm up operation. The engine control device is also configured so that before the engine is automatically stopped, a cool-down operation of the engine is performed as required and after the engine is stopped, the engine is restarted as required and the warm-up operation is performed.